

CAUTION

1. **SAVE THIS INSTRUCTIONS-** This manual contains important safety and operating instructions for the G60-12N battery charger.
Please read the caution of batteries or devices you want to charge firstly!
2. When charging, batteries can emit explosive gases, therefore it is essential to prevent flames and sparks. The charger is designed for charging specified NIMH/NICD batteries. Do not use for any other purpose.
3. Always provide good ventilation when charging.
4. Use of an attachment not recommended or sold by Green-Digital Power-tech may result in a risk of fire, electric shock or serious injury to persons.
5. To reduce risk of damage to electric plug and cord, pull by the plug rather than by the cord when disconnecting charger.
6. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure that: a) Pins on plug of extension cord are the same number, size and shape as those of plug on charger; b) Extension cord is properly wired and in good electrical condition; and c) Wire size is large enough for ac ampere rating as specified in "technical data".
7. Do not operate charger with a damaged cord or plug-return the charger to the place where purchased.
8. Never operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way; take it to a qualified serviceman.
9. Do not disassemble the charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
10. To reduce risk of electric shock, unplug charger from AC outlet before attempting any maintenance or cleaning. Turning off controls will not reduce the risk.

G60-12N 7.2V~12V NIMH/NICD Battery Charger

User's Manual



Brief Introduction

G60-12N is a main member of digital-chargers from Shenzhen ABT Electronics CO.,LTD . It represents today's new technology for 7.2V(6s) ~ 12V(10s) NIMH/NICD battery pack charging. G60-12N programmed 3 auto stages (Ip-Im-It) charging process. It is designed for 6s(7.2V) ~ 10s(12V) 3~25Ah NIMH/NICD battery pack. Stage "Ip" is a pre-charge function for deep discharged battery pack, this is helpful for battery's cycle life. When the battery recovered by pre-charge small current, stage "Im" will give bulk current charging. This is the main charge stage, when the battery nearly charged full , -dV phenomenon will be detected by the MCU in charger (-dV value is 3~6mV/per cell about) . Then the battery will leave bulk stage and cut-off output or enter a defined trickle pulse charge stage "It" to maintain battery.

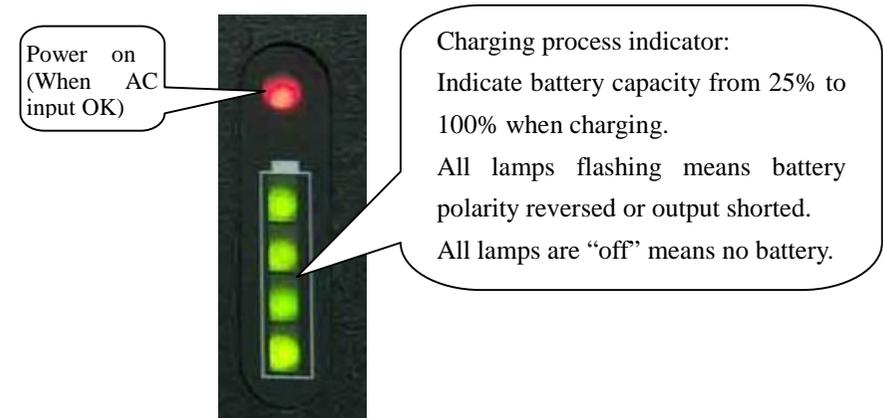
Further, G60 can display the charging process, indicate the battery capacity from 25% to 100% timely. This is helpful for user.

For more safety, G60 will inter protection mode when the battery polarity reversed our the output connectors shorted.

Specification for G60-12N

Input Voltage	100-240VAC, 50-60Hz	
Input Current	1.1A	
Back current drain 1)	<1mA	
Charge voltage limit	16V	
Pre-charge current	0.3A	
Bulk charge current	G60-12NS	G60-12N
	2.0A+-5%	3.3A+-5%
Cutoff condition	-dV>=5mV/cell or Timer out or Peak-voltage trigger	
Operate Temperature	-20°C~50°C	
Cooling	Natural convection. Do not cover the charger.	
Charge principle	Auto 3 stages: Ip-Im-It	
Battery type	NIMH/NICD 7.2V~12V(6S~10S)	
Battery capacity	3-25Ah	
Size	120X67X41mm	
Enclosure	IP54 (Dust protected, Water splashing resistance)	
Weight	270g	

Display Panel



How to use:

1. Connect the AC cord to the socket, The "power" lamp will light on solid. indication light will indicate a battery which is connected to reverse polarity.
2. Connect positive charger clip (red) to positive battery terminal, the black clip to negative. (You can use other dc plugs to connect battery), the "25%~100%" lamps will light on flowing. If the battery polarity reversed or output shorted, all lamps will flashing, please check the setup.
3. Depend on the charged capacity, 25%~100% lamps will lights up solid sequence, the battery is fully charged. Then you can power off the charger and disconnect the battery or you can charge a new battery if you need.

The table shows the duration of 95% state charged for an empty battery.

Battery Cap. (Ah)	G60-12N hours	G60-12NS hours
3.6	1.5	2
8.0	3	5
12.0	4.5	7
25.0	8.5	Not recommend